CONSIDERATION OF THE PROPOSAL TO STABILIZE THE UNIT OF MONEY

1. *Nature of the proposal to stabilize the dollar and sovereign, etc.* A monetary proposal, in some respects new and extraordinary, has been advanced recently by Professor Irving Fisher and advocated with great skill and dexterity. I shall endeavor to set out the essential features of this proposal and to analyze its soundness.

The consideration upon which it is founded may be stated as follows:

a) Essentially, price merely expresses the system of exchange relationships among commodities.

b) If, therefore, the unit of value is based upon the entire system of price relations, it will necessarily constitute an unchanging unit (excepting in so far as the usage quantitatively changes, old commodities disappear, and new ones come into being.)[1]

c) The adoption of any one commodity (*e.g.*, gold) is (said to be) disadvantageous, since the relation of this to the appropriate (weighted) mean of all the rest fluctuates considerably (a price index, if expressed in terms of a gold unit, will vary greatly).

d) There is no reason to believe that any particular commodity can occupy for any time an unchanging position in regard to the mean exchange-relation of the others.

e) It is desirable, therefore, to abandon any particular commodity as representing the unit of value (it is desirable to demonetize gold), and to substitute a "token" or "certificate" which represents a definite series of quantities of given commodities, constituting what may be called a "composite unit."

f) The relationship of this to gold, which metal is important in balancing exchange, is periodically determined by means of price indexes, which in the new system will vary only by small amounts (so it is presumed).

g) Since the period of adjustment can be made as small as we please (yearly, quarterly, monthly, weekly—presumably monthly as a practical question), the money unit is repeatedly restored to its normal position: consequently, although prices may fluctuate *inter se* as much as ever (in response to demand and supply), the mean purchasing efficiency of the new money unit will remain unchanged, or, to put it more strictly, its variations of mean purchasing power, owing to the periodical price index adjustments, are necessarily only small oscillations about a mean position.

h) Gold (or any other equally satisfactory commodity) may be retained as a medium in which considerable value can be stored in rela-

[1] Professor Fisher does not introduce this factor into the consideration, probably to avoid complicating the presentation of his subject.

tively small compass; but the quantity corresponding to the money unit will be declared officially from time to time.

i) In order to prevent financial manipulations, a charge for converting the money unit into gold should be made: the amount of this charge should correspond approximately to the fluctuations in the money unit represented by the variations in the price index (which it is presumed must always be very small).

This, I think, fully states the new theory. The unit of money is still to be called a "dollar" in America, a "sovereign" in Britain, etc. It will *not*, however, as heretofore, be a piece of gold of definite weight and fineness (a gold coin), but only a "note" or "certificate" guaranteed by the government to be valid, not *actually* for the items of the composite unit (definite quantities of a declared group of commodities), but for their equivalent according to price, and particularly (so it is implied) for gold according to its price, less a conversion charge (seigniorage).

2. *The system involves the demonetization of gold.* Here it may be remarked that the present system of gold coins would necessarily disappear, and instead thereof either gold masses would be stamped with their weight (and fineness, if a standard were not agreed upon), or for convenience a new system of *weight-coins* would be created. These would be so designed that any weight could be made up with them, as with the weights of a balance.

To think in terms of the new system, we must therefore abandon our present conception of metallic money and regard an intrinsically valueless token(a mere certificate or bit of printed paper) as the fundamental unit, this token or certificate, however, representing nominally a definite "composite unit" (that is, given quantities of actual commodities), but actually a varying quantity of one commodity, *viz.*, gold. A "dollar," a "sovereign," etc., in the new scheme is no longer so much gold, but a counter which is legal tender for varying quantities of any commodity, including gold, according to its price at the time, the price in the case of gold, however, being officially declared by stating how many grains or grammes of it a "dollar" or a "sovereign" will purchase; though even then subject to a sort of brassage or seigniorage allowance.

3. *Despite the general demonetization of gold, it is still to retain its unique position.* Let us now look into this matter somehat closely. The intention to retain gold as a commodity for lancing exchanges is obvious: that is to say, where imports and orts, credits and required commodities cannot be brought into t balance, gold must pass. The work of the cambist under the

proposed system will be considerably increased but we must let that pass as relatively of no moment. That the price of gold is fixed officially gives it a unique position. Thus the monetary function of gold will be altered nominally rather than really under the proposed scheme.

Upon careful reflection it will soon become self-evident that the scheme does not change in any way the essential relationship of gold and commodities generally, nor does it propose to do so. What it really does is:

a) It substitutes paper money for gold coins (demonetizes gold) and transfers the notion of "constancy of value" to the paper money.

b) It requires future payments to be made in terms of the paper money and therefore in varying proportions of any required commodity (including gold).

4. *In essence the scheme does not differ from that of Jevons.* In the respect indicated the scheme does not differ essentially from Jevons' proposal that account should be taken of the price index in future payments. If it be true, as Professor Fisher affirms, that "by increasing or decreasing the [gold] dollar's weight, we would be . . . providing against either a flood or a drain of money," and that "the plan would put a stop, once for all, to a terrible evil which for centuries has vexed the world, the evil of dislocating contracts and money understandings," it will also be true that exactly the same benefits will be obtained and exactly the same practical result will be achieved if, in order to determine what should be paid to discharge a debt, we multiply it by the ratio of the price index at the date of settlement to that at the time of purchase. Similarly in regard to the payments of wages, fixed salaries, repayments by a bank of deposit, and so on. Thus a wage of 100 shillings, agreed to when the price index was 1200, must become 125 shillings when it has gone up to 1500 (*i.e.*, 100s. $\times$ 1500 $\div$ 1200 = 100s. $\times$ 1¼ = 125s.). Similarly, disregarding any question of interest, if a bank receives a deposit of £1,000 when the price index is 1200, it must repay it by handing out £1,333 6s. 8d. when the price index at the date of repayment is 1600 (*i.e.*, £1,000 $\times$ 1600 $\div$ 1200 = £1,000 $\times$ 1 1/3 = £1,333 1/3). (The question of interest payable would, of course, be similarly dealt with.) Thus in the proposed scheme of Professor Fisher, £1,000 would be handed back in paper "certificates," but if paid back in gold it would—in the case supposed—be the

actual weight of 1,333 1/3 of the former "sovereigns," although only the weight of gold of 1,000 such "sovereigns" may have been received by the bank.

5. *The system involves the unique treatment of gold.* It is important to note that there is no apparent reason why gold should be in the unique position advocated unless it is still to fulfil its monetary function. It is not suggested, nor would it be practicable if it were suggested, that any other commodities should be similarly dealt with, though the terms ("involuntary theft," etc.), by which Professor Fisher describes the failure to return coin not of the same weight but of the same purchasing power, would equally apply to any commodity whatsoever. If a bank is to return a larger amount of gold when the price index has risen for what has been deposited, or a smaller amount when it has fallen, why should not the same apply to the temporary holders of wheat, cotton, iron, copper, frozen meat, etc.? If for any reason a farmer were to place 1,000 centals of wheat in the possession of a granary holder, on the understanding that for the free use of it 50 centals of wheat per annum was to be paid and that at the end of two years the whole was to be at the disposal of the depositor farmer; and if, on the two years maturing, a demand were made by the depositor that some 1,650 centals should be returned because wheat had fallen to only two thirds of the original price, the demand would be treated as preposterous; yet the principle sought to be enacted may be regarded as economically identical therewith.

Whenever the commodity that a particular person possesses happens relatively to fall in price he suffers the disadvantage thereof: he is not "cheated" nor is he "robbed."[2] Nor is Professor Fisher's "working girl" (who, having put 100 dollars in the savings bank in 1896, finds in 1918 that, although she has been given 200 dollars for the 100, she can after all purchase only what the 100 would have bought originally) "without the intention of anybody cheated out of all her interest." We may pass the connotative suggestions of the language used as of small moment, and note merely that the same thing virtually happens in every case where a person possesses a stock of commodities that fall in value, and the converse when he possesses commodities that rise in value (ethically all cases of unearned appreciation or depreciation of value are on the same footing).

6. *The real relation of gold to commodities generally not af-*

[2] See Professor Fisher's, *Stabilizing the Dollar in Purchasing-Power*, p. 9.

fected by the proposal. Suppose that we make our "composite unit" so large and representative that it may appropriately be regarded as a *standard,* and therefore, like any other standard, becomes of "fixed value." This means nothing more than that it is that by which we measure value: it is the unit of value (as so many grains or grammes of gold constitute the unit today), and therefore it counts as 1 in values, whatever the relative variations between the exchange relations of its component elements. Let it be supposed that one series of commodities, A, B, C, D, etc., in this composite unit has advanced in relation to another series therein, P, Q, R, S, etc. The possessors of A, B, C, D, etc., will be gainers, and P, Q, R, S, etc., losers, and there is no avoiding this, and "the injured party has no recourse."[3]

If it be financially practicable, which is possibly true, let us further suppose that *all future* contracts in regard to value are to be made in terms of the gold standard as it at present exists, subject, however, to revision of the amount according to price-index ratios; *exactly* the same result will be achieved as will eventuate by Professor Fisher's scheme (in which, by the way, the price of gold must be left out of account, since it is that which is ascertained by the price index based upon the series of other commodities).

7. *What causes the change of price in the present system?* Supply and demand, influenced and modified by a complex of trading manipulations, by the vagaries of fashion, and many other things, really determine the exchange relations of commodities, gold included, as the case stands at present. Whether the quantity theory is substantially true or is not true matters little. The total gold supplies at present are in excess of normal currency requirements though a world war has upset this for a limited period, thus necessitating the creation of temporarily inconvertible paper money. The fact observed is that on the whole there has been a world wide rise in prices *recently.* Doubtless, too much has been made of this, as is evident when we make a more extensive survey of the question.[4] If we combine all the results for wholesale prices and weight them by the populations as at the

[3] *Op. cit.,* p. 13. The representation of the existing economic system as equivalent to a person buying a box of socks and finding the socks had been taken out is not parallel. It is rather this, the box contains a varying number of socks.

[4] A belief that price indexes will perpetually rise is, in my opinion, without justification. Already there are signs of price indexes falling as they fell in the latter half of last century. A belief has arisen that gold supplies will fall short of requirements: if well founded, prices will certainly fall.

time, the following average quinquennial results are obtained, the year indicated being the middle year of the quinquennium: The

Year	1842	1847	1852	1857	1862	1867	1872	1877
Price index....	1067	1001	1004	1096	1205	1360	1249	1065
Year	1882	1887	1892	1897	1902	1907	1912	1916[5]
Price index....	1007	860	821	765	859	944	1021	1533[5]

high value for the price index in the quinquennium, 1865-1869, followed the Civil War of America. It is of course invalid to go back into far distant history for illustrations of the system of relations between gold and other commodities, because we are not able to ascertain accurately populations, the stocks of gold, the demand owing to the mechanism of financial operations, the standard of living, the difficulties or otherwise of winning gold. We must therefore base our views upon the data from the year 1840 onward when the price index was 1,162, the basic year being 1911 = 1,000. Up to the year 1916 the range of the price indexes was from 726 in 1896 to 1,513 in 1865 and 1,365 in 1916. We may say, therefore, that the range is about 0.75 to 1.50. There is every probability of a readjustment when events again become normal.

Apart from the effect of war, financial collapses, famine, etc., it is of course to be expected that the relationship of commodities to gold should rapidly change with improvements in the mechanism of exchange. The less gold is employed in this mechanism the greater will its depreciation tend to be, because its quantity will be in excess of requirements. There is nothing extraordinary in this, and the phenomenon hardly belongs to the arcana of finance.

8. *Danger of a money unit not representing a reality.* In the new system advocated the money unit becomes, if not a mere *nominis umbra*, at least a unit dissociated from the *reality of value*. A credit instrument, a note, a bond, is really a promise to pay, and is without intrinsic value. For this reason it must be safeguarded in some way, *viz.*, by the holding of at least a considerable proportion of what it represents; for example, gold, etc., in the case of our present money system. It would appear that it is not proposed to hold commodities as the reality against the "dollar-certificates," but gold of ever varying value.

Thus, as previously stated, the new "dollar," or the new "sovereign," will not be a definite quantity of a commodity (gold) of standard fineness, but *an intrinsically valueless thing*, valid for exchange, not into the composite unit which is the corresponding

[5] Means for three years only from an incomplete number of returns.

reality, but into some given amount of gold determined by its price, officially declared upon a basis of experience of the price of the commodities in the composite unit. But since the gold liberated is not likely to be used in the arts, quite a moderate proportion will serve the purpose in view, and as the metal is demonetized, "What," we may ask, "will operate to fix its price?" It will tend to become a commodity, the quantity of which will be greatly in excess over the demand. This *per se* will tend to lower its price as compared with commodities. Professor Fisher's remedy (virtually the demonetization of gold, or at least its elimination from usage as ordinary currency) will accelerate the rapidity of its fall in value: in other words, it will tend to enhance the prices of commodities in relation to gold, though in his scheme the fact is masked by the introduction of an intermediary—the paper dollar —which will appear to be constant. The reality of its depreciation will be evidenced by one thing only, *viz.*, that as time goes on, the paper dollar will buy more and more gold in proportion as the currency usage of gold is diminished. This may of course be corrected by the supply falling off, as it may not be profitable to win gold in such circumstances.

9. *Inflations of currency steadied only by storing commodity of value.* The large issues of paper currency, alleged to be convertible, but really inconvertible (at least temporarily), have already been followed by inflations of price. These inflations will quickly be corrected as soon as the paper becomes really convertible. The possession, by the issuer of paper money, of the commodity (gold) which ensures convertibility is the corrective that operates against the perpetual advance of prices from continued inflation: the necessity of possessing the gold limits the issue of the paper.

The unlimited issue of valueless paper which can be made legal tender, and is not even interest bearing, brings in its train the mischief with which it is uniformly associated. The large issue of paper money has been tried frequently, perhaps the most notable instance being the issue of the French "assignats." The new scheme does not propose that governments issuing the paper should store either the composite unit or gold as a check on over-issue, and it is the leaving of this out of sight which lends plausibility to the scheme. The Gresham law will operate and the gold pass out—more and more cheaply—to those peoples who do not espouse the scheme or endorse it practically. *The necessity of storing a reasonable proportion of the thing of value* (*i.e., gold*)

represented by the paper is the safeguard which the new scheme does not sufficiently take into account.

10. *Gold as a safeguard.* But here perhaps the rejoinder may be made that it *is* proposed to retain gold stocks and to make the paper money convertible. The gold dollar of 25.8 grains of gold, nine tenths fine, will have disappeared. Definite weights of gold will be paid out against paper dollars. Initially the paper dollar will buy a little less than 25.8 grains of gold. As paper issues increase, a paper unit will tend to purchase less and less gold (a result in accord with the quantity theory of money) unless this is modified by a collateral demand for gold and a corresponding restriction of paper money to the minimum of currency requirements. There would, as previously stated, be no necessity to make gold coins: gold masses (bricks) of specified fineness and weight, duly stamped by the mints, would take their place.

It is interesting to note that in this development (?) we should be virtually going back to the days of the Chinese gold cubes, for these gold masses would be exchanged for the dollar certificates in one country and sovereign certificates in another according to their latest declared gold purchasing power.

11. *Gold being excluded in the determination of a price index really remains the standard.* It is true of course that the scheme will tend to stabilize the value of the dollar certificate in ordinary circumstances, *provided* gold be left out of account in the list of commodities embraced in the evaluation of the price index. Of course, were it included with a proper weighting, *it would balance the price index, since the quantity of gold is made to fall in the same ratio that the price index rises.* Thus this metal is in a somewhat peculiar position. It is still to be regarded on the one hand as a mere commodity, for variable quantities will be purchasable according to its declared price by means of paper certificates, each of which represents a given composite group of commodities other than gold. Notwithstanding this, the whole system of exchange relations between gold and all other commodities remains unaffected, excepting in so far as demonetization diminishes the quantity of gold required as currency.

Exchange relations between commodities are not changed by the mere adoption of any one or of any group of them as a basis of reference. That this is so can be visualized by a very simple

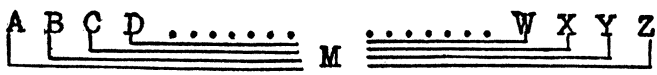

diagram in which the lines denote the exchange relation of each to M, thus any one commodity (A, B, C, D, etc., or W, X, Y, Z, etc.) could take the place of M in the diagram (say, either 1 bushel of wheat, or a complex group made up in any definite way whatsoever, instead of so many grains of gold), and the scheme of relations would be absolutely unchanged. All that is changed is the mere numbers expressing the relations themselves: the numbers would differ, not the relative facts. So far as the exchange relations are concerned, the new proposal is essentially only a manipulation of figures, not a change of the reality. Parenthetically, it may be remarked here that it will not stabilize the purchasing-power of the dollar in all circumstances, as we shall later see.

12. *The stabilizing function of the composite unit.* If the new scheme does not contain some hidden surprises (which is quite possible) and does not lend itself to injurious financial manipulations (which is also possible), it is of course true that it might serve the purpose of providing a unit of (relatively) constant value in ordinary times for those whose purchasing requirements happen to coincide with it both qualitatively and quantitatively. That is to say, any person whose purchase requirements happen to be the same proportion as regards commodities and their amounts as in the composite unit, would have a paper money unit of approximately fixed value (so long as he did not want to purchase gold). It would therefore automatically, subject to the indicated limitations, adjust payments so that they would have in this particular case a constant purchasing efficiency. The uniform purchasing power in this sense is maintained by varying the relation of the certificate to the real standard, *viz.*, gold. But obviously it is not true that it is uniform for all classes of purchases and purposes. For one set of purchases it would be disadvantageous and for another advantageous. It is only *on the whole* and for the "*average purchaser*" (in the sense of "l'homme moyen") that it is of uniform value. In individual cases it is non-uniform, and for the purchase of gold is as variable as the price index is in the present system.

13. *The application of price indexes to determine equivalent payments similarly stabilizes purchasing power.* What Professor Fisher calls the "unjust transfer of property," the "cheating of savings and bond holders," the "suffering of salaried classes," and also of the wage-earning classes wherever wages are not equated by means of price-indexes, may all be remedied by determining that salaries, etc., and contract payments shall always be

subject to correction by means of the ratio of price indexes at the time of the initial agreement and the time of payment. (In Australia minimum wages are equated from time to time in this way, but not automatically.) As already shown, it does this exactly as the "paper certificate" does, and is effected in a perfectly definite way, which is quite intelligible. The creation of a dollar certificate of varying value as regards the standard metal (gold), of varying value as regards any individual commodity, and of (approximately) fixed value only as regards the purchase of the composite unit or any multiple thereof, has after all nothing like the virtues that it appears to have when we restrict our imagination to purchasers engaged in buying the composite unit or its approximate equivalent. From this point of view alone it is seen that the abandonment of the precious metal (gold) as the standard of value is at least of very doubtful wisdom.

The reason why gold has held its position as a standard of payment from time immemorial is that in respect of physical properties and relative value it is uniquely fitted to serve as a standard, and the question of changing values can be as conveniently and intelligently met by applying price-index ratios as by using a paper dollar of varying gold values. It seems almost to have been overlooked in Professor Fisher's article that gold in currency, and the gold reservoir to meet unanticipated financial situations, constitute together a stabilizer of eminent services; and also that the adoption of a single commodity of high value, great permanence, easily handled, and incorruptible, has been of enormous advantage to mankind.

14. *Conclusion.* In closing his article Professor Fisher says: "Our shifting dollar is responsible for colossal social wrongs. It is the great pick-pocket, robbing first one set of people, and then another, to the tune of billions of dollars a year, confounding business calculations and convulsing trade, stirring up discontent, fanning the flames of class hatred, perverting politics." These evils are to be annihilated by securing "a true standard for contracts, a stabilized dollar."

We have pointed out that the whole system of exchange relations is not really altered by making the "dollar" the name for the value of a composite unit instead of the name of a definite weight of standard gold. So far as it is possible to attain it, the result at which Professor Fisher aims can be secured by making wages, salaries, or any contracts as to payment that we please vary as the price indexes vary. By so doing we see clearly the

mechanism of our operations, and this is not a disadvantage but an advantage. We are not working blindly but intelligently. The simplicity of the system of comparing the exchange values of all other things with a unique standard—gold—is not jettisoned but retained. We can decide which payments shall be made subject to price-index variations and which shall not, for they are probably not all equally entitled to this alleviation, or loading, as the case may be; and, further, the scheme cannot and should not be indiscriminately applied.

Finally, there is an error in the assumption that a stabilized money unit is really a possibility, which error can be made manifest by the following considerations. Suppose that on an isolated continent all transactions were carried on by a paper currency guaranteed to be valid by its government, the unit representing the value of a definite composite of commodities. Drought occurs and crops fail, producing a serious shortage of some of these. Obviously the whole system of exchange relations will then have to be changed, and those who have most paper dollars will be prepared to sacrifice them to meet their needs; that is, the commodity value of the paper dollar will have fallen in spite of the stabilizing process. The situation would be the same if the currency were gold. With a paper currency there would also be greater risk of failure to reëstablish a normal situation, because it is intrinsically worthless. We are safer with the system of a noble metal basis, and all difficulties which arise from general changes between the unit of value and commodities can be met by special or general provisions determining the proper payment by means of price indexes. It will be a service of value if we can eliminate from popular opinion the notion that money payments for goods or for services can be mechanically made or adjusted so as to be perpetually satisfactory. Whenever Nature's bounties are variable in quantity or fail, and whenever the population is in excess of supplies, the ordinary dollar will fail and the "stabilized" paper dollar will fail also. No manipulations dependent upon price indexes can serve us, and not even contracts can secure us. The attempt to create a unit of value which shall be constant is really chimerical, and experience would soon reveal that. I am of opinion that if a real crisis came through world shortages, the holders of the paper dollars would have reason to deplore the new system.

In closing I desire, however, to express my sense of indebtedness to Professor Fisher for so ably raising this question. While

I do not think his conclusion is correct, *viz.*, that it is desirable to create a "certificated unit of money," his discussion of the question is illuminating, and brings again into strong relief a point of view argued long ago by Jevons, a point of view which has commended itself to the arbitration courts of Australia in regard to wages at least, but which probably requires considerable qualification. It is of great advantage that, from time to time, our economic usages, however long sanctioned, should be reviewed by capable minds of great originality and clear insight, and that we should be forced to readjust our point of view and see the truth with a wider outlook. I hope later to show explicitly that there is a very real limit which prevents the automatic adjustment of the payments for services (salaries and wages, etc.) so that they shall perpetually have the same commodity-purchasing power; and to show also that no unit of money, metallic or paper, can possess this power, even if it were legally declared that it shall have it. The idea that we can have a stable unit of money leaves out of sight that the bounty of Nature varies, that man's industrial activities do not exactly coincide with human requirements, that the vagaries of taste disturb his wants, and that the standard of his desires perpetually alters. A unit of *value* cannot appropriately be compared—as Professor Fisher compares it—with a physical standard:[6] for on its subjective side, which comes specially into play in all crises (shortage, famine, etc.) the constancy of relation to commodities cannot be assured. In times of famine people would be willing to give two, three, or more stabilized dollars for the group of commodities which each dollar "represented." It is these facts that make the hope of creating a stabilized unit of anything chimerical, and which show that merely mechanical manipulations of prices and values cannot remedy a difficulty which is real and in the nature of things.

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[6] *Op. cit.*, p. 13. In the case of some physical standards (*e.g.*, length, weight, etc.) its nature is that of an example in kind: for instance, the distance between two points, a mass of gold or platinum. In the case of others the unit is measured by some consequence of its presence: *e.g.*, in the case of heat by linear, area or volumetric changes. Exchange-value depends upon the attitude of the mind: that is, ultimately it is esteem-value. Thus in a shortage of food commodities, the esteem-value would rise, and although the certified "stabilized dollar" was to represent given quantities, famine would so raise the esteem-value of food that persons would—in extreme cases—pay any number of "stabilized dollars" to preserve health or even life itself.